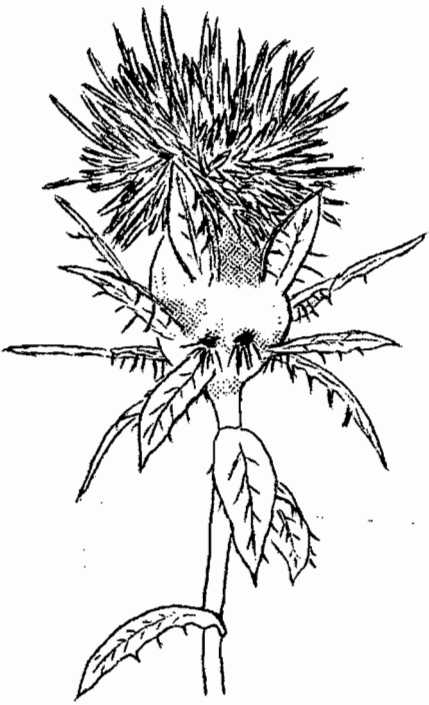
safflower

sample costs and production



University of California
Agricultural Extension Service
Imperial County
Court House, El Centro

Cost Data Sheet No. 19

Costs based on custom rates and 1½ tons/acre yield

SAFFLOWER--SAMPLE COSTS AND PRODUCTION

ITEMS	SAMPLE COST Per Acre
LAND PREPARATION AND LABOR	
Plow or chisel	$ 7.00
Disc 2x	4.00
Land plane 2x	5.00
Fertilize & list 1x	2.00
Mulch 1x	2.25
Irrigate 8x	6.00
TOTAL LAND PREPARATION	$ 26.25
MATERIALS	
Seed 15 lbs. at 12¢/lb.	1.80
Irrigation water 4 ft.	8.00
Fertilizer 100 lbs. N as NH_3 preplant	6.00
TOTAL MATERIALS	$ 15.80
HARVESTING	
Combine $7.00/acre + 10¢ per cwt. over 1 ton	7.00
Haul $2.00/ton up to 15 mi.	3.00
TOTAL HARVESTING	$ 10.00
CASH OVERHEAD - 10% of above costs	5.20
LAND RENT	40.00
TOTAL ALL COSTS	$ 97.25

GENERAL INFORMATION

The information in this publication is based on very limited local data since safflower has only been grown commercially one year in Imperial County. Much of the information has been adapted from other safflower producing areas.

SOIL REQUIREMENTS

Safflower is adapted to all soil types in Imperial County. It is only moderately salt tolerant so should not be grown on very saline fields.

The important factor is that the soil be well drained not only on the surface but internally. Safflower will not tolerate standing water.

LAND PREPARATION

Fields must be level enough to prevent standing water. That is the reason for land planning in two directions.

The crop can be planted on dry beds and then irrigated up. This would

eliminate the cost of the mulching operation. Safflower can also be planted flat in borders which would alter the land preparation costs. For flat planting the field must be level.

PLANTING

Optimum planting dates range from December 1st to January 20th.

When planting on double row beds on 40 inch centers 15 lbs. of seed will be adequate. When the seed is planted in the mulch it should be planted 1½ to 2 inches deep. When planted dry it should be planted at 1 inch.

Safflower planted in a mulch emerges several days earlier than when planted dry and watered up.

When safflower is drilled in a flat planting 30 lbs. of seed per acre should be used. It can be drilled in either 7 inch or 14 inch rows.

VARIETIES

The variety Gila has given the best yield in trials. U.S. 10 would be the second choice.

IRRIGATION

A good pre-irrigation is necessary to insure proper seed bed moisture. Approximately 7 more irrigations are necessary depending on the soil type. Safflower should never be stressed for water as this will increase the amount of root rot. During flowering and seed set irrigations are critical. Plants stressed during this time will not set seed nor fill out the seed that is set.

FERTILIZATION

Unless the land has shown defenite phosphate deficiency, phosphate is not needed. If it is deficient 50 lbs. of P_2O_5 is ample.

One hundred pounds of N is sufficient following most crops. However, if the soil is short on nitrogen, 150 lbs. of N may be needed.

DISEASES

The two major diseases are Phytophthora root rot and safflower rust. The variety Gila is resistant to root rot.

INSECTS

Little is known concerning insect damage in Imperial County. Trials will be conducted. Contact your Farm Advisor for the latest information.

WEED CONTROL

Generally weeds are not a problem in safflower. One or two cultivations may be necessary if the field is weedy.

HARVESTING

Safflower is ready to harvest when the leaves and particularly the bracts around the heads turn brown.

Harvesting is done with a regular combine. Careful adjustment of cylinders and cylinder speed is important. Also ground speed should not be too fast. About two MPH, depending on yield, is best.

MARKETING

Most safflower is grown under contract with a processing plant for a guaranteed price.

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